

REMARKS

Applicant has received and carefully reviewed the Final Office Action of the Examiner mailed September 25, 2009. Currently, claims 10, 12, 27-30, 32, and 33 remain pending and stand rejected. With this paper, claims 10, 27, and 29 have been amended. Support for the amendments is found in the specification, claims and drawings as originally filed. Favorable consideration of the following remarks is respectfully requested.

The amendments to claims 10, 27, and 29 are clarifying in nature and return the claims to a previously presented state. The amendments are believed to reduce the number of rejections for appeal. Entry of the amendments is respectfully requested.

Claim Rejections under 35 U.S.C. § 112

Claims 10, 27 and 29 have been rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Applicant respectfully traverses the rejection. The Examiner asserts the meaning and definition of any "direct" transition lacks support within the specification. While Applicant does not concede the correctness of the rejection, in the interest of furthering prosecution in a timely manner, independent claims 10, 27, and 29 have been amended to recite "a step-wise transition." Applicant submits clear support for the limitation may be found, for example, at page 9, lines 7-9, which states, "A continuous wire can have a constant diameter across its entire length. A continuous wire can have a diameter that changes along its length. The diameter can vary continuously, or the diameter can vary step-wise." In the context of this application, one of ordinary skill in the art will clearly understand that two embodiments are being described. The transition may be continuous, similar to a ramp, or the transition may be abrupt or step-wise, similar to stairs. It is respectfully asserted "step-wise" is a term that would be readily understood by one of ordinary skill in the art. An accepted definition of step-wise is, "in a steplike arrangement" (<http://dictionary.reference.com/browse/stepwise?r=66>, accessed November 11, 2009). This interpretation of the term in the art is further evidenced by U.S. Patent No. 7,343,659 to Weber et al. Weber et al. disclose a method of making a medical device. Weber et al. state at column 7, lines 3-4, "[t]he portions with different diameters can vary step-wise (FIG. 7)." For the Examiner's convenience, Figure 7 of Weber et al. has been reproduced below:

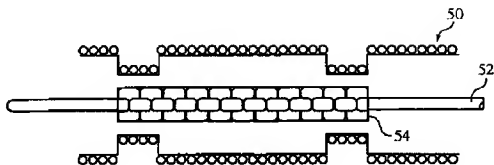


FIG. 7

Figure 7 of Weber et al. clearly shows coil 50 having a first diameter directly transitioning to a second diameter in a step-wise manner as described in the specification. In considering the instant specification, one of ordinary skill in the art would clearly understand what is meant by a step-wise transition. Reconsideration and withdrawal of the rejection are respectfully requested.

Claims 10, 27, and 29 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim subject matter which Applicant regards as the invention. The Examiner asserts the term a “direct” transition is broad and does not have a definitive meaning. While Applicant does not concede the correctness of the rejection, in the interest of furthering prosecution in a timely manner, independent claims 10, 27, and 29 have been amended to recite “a step-wise transition.” For at least the reasons discussed above, Applicant respectfully asserts one of ordinary skill in the art will clearly understand what is meant by a step-wise transition. Reconsideration and withdrawal of the rejection is respectfully requested.

Claim Rejections under 35 U.S.C. § 103

Claims 10, 12, 27-30 and 32-33 were rejected under 35 U.S.C. §103(a) as being unpatentable over Schoenholtz, U.S. Patent No. 6,203,534, in view of Cohen, U.S. Patent No. 5,330,521 or Klint, U.S. Patent Pub. No. 2002/0074051. Applicant respectfully traverses the rejection.

Schoenholtz, Cohen, and Klint, either separately or in combination, do not teach or suggest the device as currently claimed. For example, none of the above cited references teach or suggest “wherein each of the continuous wires of the reinforcing braid layer includes a step-wise transition from the distal diameter of each of the continuous wires to the proximal diameter

of each of the continuous wires,” as currently claimed in independent claim 10. Independent claims 27 and 29 recite in part, “wherein each of the continuous wires of the reinforcing braid layer includes a step-wise transition from the first diameter of each of the continuous wires to the second diameter of each of the continuous wires.” In formulating the rejection, the Examiner states, “Schoenholtz meets the claim limitations as described above except for the distal and proximal braided section having a decreasing cross sectional area.” The Examiner relies on Cohen or Klint to provide the missing claim limitation.

Neither Cohen nor Klint teach or suggest each of the continuous wires of the reinforcing braid layer includes a step-wise transition from the distal diameter of each of the continuous wires to the proximal diameter of each of the continuous wires as currently claimed. As discussed above, a step-wise transition is considered as one that transitions in the manner of steps, or analogously, stairs. Moreover, as can be seen in Figures 5 and 5A of the present application, the transition from the first proximal diameter to the second distal diameter occurs in less than one winding of the coil. Neither Cohen nor Klint teach or suggest a transition in the diameter occurs in less than one winding of the coil. In response to Applicant’s previous arguments, the Examiner asserts, “[t]he Cohen references shows a wire core that tapers over its length, the Examiner considers this a direct transition over to a different diameter; the Klint reference shows a guidewire core that is ground down to decrease over its length and again is considered to directly transition to a different diameter.” Applicant respectfully disagrees. The Examiner is describing a gradual transition in diameter and not a step-wise transition as a currently claimed. Moreover, the gradual transition of the Cohen and Klint references takes place over numerous windings and not less than one winding as recited in claim 10. The Examiner has ignored this limitation in formulating the rejection.

In formulating the rejection, the Examiner has relied on Figure 4 of Cohen as showing an incremental step-wise transition. It is noted that Figure 4 is a cross-sectional view of an electrical lead, and a taper may appear to be a step-wise transition. However, Cohen teaches away from the use of a direct transition in the wire core that comprises the lead. In describing Figure 4, Cohen teaches at column 8, lines 35-39, “It should be noted that the taper of the wire core may be precisely controlled so as to be as gradual as desired. Generally, the more gradual the taper, the less stress concentration there is in the tapered section of the wire core.” Emphasis added. Cohen emphasizes a tapered wire and not a step-wise transition. Furthermore, as can be

seen in Figure 4 of Cohen, the diameter of the wire changes over multiple windings of the wire. Clearly this cannot be considered as a step-wise transition as currently claimed.

Klint teaches a wire core that is formed from a wire with a constant diameter throughout the length. The wire is helically wound and is subsequently ground to create a variation in cross-sectional shape. Figure 2 of Klint shows the coil as gradually tapering from a circular wire to a semi-circular wire. One of ordinary skill in the art would not interpret the coil of Klint as a direct transition from a first diameter to a second diameter. Furthermore, as can be seen in Figure 2 of Klint, the ground wire cross-section changes over multiple windings of the wire. Clearly this cannot be considered as a step-wise transition as currently claimed.

For at least the reasons set forth above, Schoenholtz does not teach each and every element of independent claims 10, 27, and 29. Cohen and Klint do not teach what Schoenholtz lacks. Thus, even if one were to combine Schoenholtz and Cohen or Klint, one would not arrive at the device as claimed. Furthermore, there is no motivation for one of ordinary skill in the art to modify Schoenholtz, Cohen or Klint to achieve the device as claimed. Applicant submits that claims 12, 28, 30, 32 and 33 are also in condition for allowance as they depend from one of claims 10, 27 and 29 and they add significant limitations to further distinguish them from the prior art.

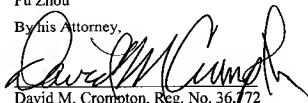
Conclusion

Reexamination and reconsideration are respectfully requested. It is respectfully submitted that all pending claims are now in condition for allowance. Issuance of a Notice of Allowance in due course is requested. If a telephone conference might be of assistance, please contact the undersigned attorney at (612) 677-9050.

Respectfully submitted,

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By his Attorney,



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Date: 11/24/09